Bally Groundwater Contamination Superfund Site Frequently Asked Questions

Sub-slab Air Sampling

April 2005

Q. How could Trichloroethylene (TCE) vapors enter my home?

A. Vapor intrusion can occur when chemicals present in contaminated soil or ground water vaporize and move upwards, creating the potential for them to enter into buildings, such as homes or businesses. EPA is overseeing the vapor intrusion investigation at the Bally Superfund Site to find out if chemicals are vaporizing from the contaminated ground water plume, and then moving upwards in vapor form and gathering beneath nearby town homes. If this is occurring, there is a potential vapor intrusion.

Q. If vapor intrusion does occur, what are the potential health effects of breathing TCE?

A. The impact that breathing TCE vapors may have on human health depends upon many factors, including how high the TCE concentrations are, and how long a person is exposed. While people who work with high concentrations of TCE may experience effects such as dizziness and skin irritation, these types of high concentrations are not expected in the Bally-area homes. At this site, EPA's greatest concern is determining whether there are concentrations of TCE that could significantly add to the background risk of cancer that we all experience.

In the past, EPA classified TCE as a probable human carcinogen (cancer causing chemical), and that classification continues to be evaluated.

Q. How will EPA determine what level of TCE is "safe" beneath my home?

A. When the sub-slab air sampling is complete, and the air-sample results are back from the laboratory, an EPA toxicologist in the Superfund program will perform a risk assessment using the air-sample results. The risk assessment will consider the levels of TCE present beneath the slab, how much of that vapor is actually expected to penetrate the slab, the potential health effects of TCE, and the length of exposure. The risk at the site will be compared to EPA's acceptable levels. The results of the risk assessment will be shared with the residents.

Q. How disruptive will sub-slab air sampling be? Also, is there a chance that the hole drilled for sampling might cause water to enter into my basement, or cause some other problem? If that happens, who is responsible?

A. The sub-slab air sampling will take about three hours (including drilling the hole into the basement slab for sampling). The actual drilling of the hole for sampling will probably create a fair amount of

noise, although the drill used is a hand-held style drill, and the hole created will be quite small, approximately 3/8". Once the sub-slab air sample is collected, the hole will be filled with concrete filler.

If a problem occurs because of the hole drilled for sampling, the responsible party performing the investigation (Sunbeam Products, Inc.) will work with EPA and the residents to fix the problem. The contractor performing the investigation (Arcadis G&M, Inc.) will carefully document conditions in basements with residents prior to drilling to help identify problems before they occur.

Q. If a chemical vapor problem is identified that needs to be fixed, who is responsible for paying whatever costs are associated with fixing the problem?

A. If work needs to be performed because a sub-slab chemical vapor problem is identified, EPA will enter into an agreement with the responsible party to have that work performed. If this is not possible, Superfund money can be used to have the work performed. Private residents will not be held financially responsible.
In the event that a chemical vapor problem is identified, one option that will be evaluated to fix the problem is the installation of a "sub-slab depressurization system"/ This is basically a radon- mitigation system that draws vapors from beneath the slab and vents them to the outside. This prevents vapors from migrating inside a building.

Q. In February 2003, EPA identified 1,4-dioxane in the Bally water system at low levels. The responsible party agreed to perform a study to determine how the 1,4-dioxane could be addressed. What is that status of that project?

A. One aspect of the study remains to be completed: the feasibility of installing a new supply well for the Borough of Bally. That aspect of the study has had problems because of the difficulty in getting access to private property. In April 2005 a property owner north of the borough signed an agreement with the responsible party to perform drilling on the property to see if enough water exists for a new supply well. That work will commence this spring.

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